IN THE CLAIMS:

Claim 1 (withdrawn) A catalyst for synthesis of 2- and 4- Picolines which comprises a heteropoly acid selected from the group consisting of silicotungstic acid, phosphotungstic acid, phosphomolybdic acid and vanadotungstic acid provided on a support.

Claim 2 (withdrawn) A catalyst as claimed in claim 1 wherein the support is selected from the group consisting of silica gel, alumina, silica-alumina, clays and montmorillonite.

Claim 3 (currently amended) A process as claimed in claim 9, wherein the heteropoly acid catalyst is provided in step (a) by dissolving vanadotungstic a ~~heteropoly~~ acid in distilled water; mixing the resulting mixture with a desired amount of a binder to obtain a slurry; stirring the slurry till uniform impregnation is achieved; drying the slurry in air at 200-250°C for a time period in the range of 0.5 to 1.5 hours; further heating the slurry at a temperature in the range of 300 to 400°C for time period in the range of 0.5 to 1.5 hours and cooling the resultant product to room temperature in a desiccator to get the catalyst.

Claim 4 (cancelled)

Claim 5 (original) A process as claimed in claim 3 wherein the binder is selected from the group consisting of silica, alumina, silica-alumina, clays and montmorillonite.

Claim 6 (currently amended) A process as claimed in claim 3 wherein the vanadotungstic ~~heteropoly~~ acid is dissolved in distilled water in a ratio of 0.5:4.5 (w/w).

Claim 7 (original) A process as claimed in claim 3 wherein the binder comprises silica gel of mesh size 6-14.

Claim 8 (original) A process as claimed in claim 3 wherein the slurry is stirred for a time period in the range of 30-40 minutes.

Claim 9 (currently amended) A process for the preparation of 2- and 4- picolines which comprises (a) providing a heteropoly acid catalyst comprising ~~a heteropoly acid selected from the group consisting of silicotungstic acid, phosphotungstic acid, phosphomolybdic acid and~~ vanadotungstic acid provided on a support, and (b) reacting acetaldehyde and ammonia under heat in the presence of the catalyst, the catalyst being present in an amount in the range of 5 to 15 wt %, and (c) separating the 2- and 4- picoline formed.

Claim 10 (original) A process as claimed in claim 9 wherein the acetaldehyde and ammonia are taken in a ratio of 0.8 to 1.2 (w/w) and are reacted at a temperature in the range of 300 to 500°C.

Claim 11 (original) A process as claimed in claim 9 wherein the reaction is carried out in a glass reactor.

Claim 12 (original) A process as claimed in claim 9 wherein weight hourly space velocity of the acetaldehyde and ammonia is maintained in the range of 0.1 to 10 g/g of catalyst.

Claim 13 (original) A process as claimed in claim 12 wherein the weight hourly space velocity of the acetaldehyde and ammonia is maintained in the range of 1 to 3 g/g of the catalyst.

Claim 14 (original) A process as claimed in claim 9 wherein the the 2- and 4-picolines are separated by fractional distillation.

Claim 15 (cancelled)

Claim 16 (original) A process as claimed in claim 9 wherein the binder is selected from the group consisting of silica, alumina, silica-alumina, clays and montmorillonite.

Claim 17 (original) A process as claimed in claim 9 wherein the binder comprises silica gel of mesh size 6-14.

Claim 18 (previously presented). A process as claimed in claim 10, wherein the acetaldehyde and ammonia are reacted at a temperature of 300° C.

Claim 19 (previously presented). A process as claimed in claim 9, which consists essentially of steps (a) - (c).

Claim 20 (currently amended). A process as claimed in claim 9, wherein the catalyst provided in step (a) is prepared by dissolving ~~a heteropoly acid~~ vanadotungstic acid in distilled water; mixing the resulting mixture with a desired amount of a binder to obtain a slurry; stirring the slurry till uniform impregnation is achieved; drying the slurry in air at 200-250°C for a time period in the range of 0.5 to 1.5 hours; further heating the slurry at a temperature in the range of 300 to 400°C for time period in the range of 0.5 to 1.5 hours and cooling the resultant product to room temperature in a desiccator to get the catalyst.~~θ~~